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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,884	10/11/2001	Sham Chakravorty	59631-013	8955

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EXAMINER	
JAIN, RAJ K	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/973,884	CHAKRAVORTY, SHAM	
	Examiner	Art Unit	
	Raj K. Jain	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2005* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 14-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki (US Pat 6,330,239).

Regarding claim 1 Suzuki discloses a communications switching system for exchanging data between an asynchronous transfer mode network and an Internet protocol (IP) network, (**see abstract; Figs 2 & 3**), the system comprises of the following with respect to an IP network in general;

- a packet number field for indicating whether the packet is the first packet in a chain of packets, or a generic packet for a specific purpose (the IP address fields comprises of header and information fields (**see Figs 3 & 7; col 7 lines 5-23**) the flow label information field 33 identifies to which flow the packet belongs and therefore the packet number for a given flow sequence, the header can also comprise of other fields, such as a Header Error Control HEC, a Generic Flow Control GFC, a Cell Loss Priority CLP and a Payload Type PT.);

- a virtual connection identifier (**see col 6 lines 17-39**, the VPI/VCI form the virtual connection identifiers which form the path selection unit);

- a QoS field for identifying parameters of QoS (**see col 4 lines 7-20**, the header field may be identified as the QoS field);

- a management field for management message and security field for security parameters (see col 1 lines 30-42, IPv6 is an upgraded and enhanced version of IPv4. IPv6 provides for number of improved functions including multi-cast communications and real-time communications (same as management messages in-terms of real-time communications) and security functions with an expanded header for security of packet transmission).

Regarding claim(s) 9 and 18, Suzuki discloses a communications switching system for exchanging data between an asynchronous transfer mode network and an Internet protocol (IP) network, (see abstract; Figs 2 & 3), the system comprises of the following with respect to an IP network in general;

- a virtual connection identifier (see col 6 lines 17-39, the VPI/VCI form the virtual connection identifiers which form the path selection unit, further, by definition a VCI is a 16 bit field in the ATM cell header, that identifies a virtual channel, over which the cell is to travel and therefore is part of the allocated IP address field).

Regarding claims 2, and 10, Suzuki discloses the virtual connection identifier by assignment of VPI/VCI settings (15), which selectively sets a path (VPI/VCI)

corresponding to the destination (**see col 8 lines 7-42**). Each virtual path can comprise a plural number of virtual channels, each of which is identified by a 16-bit VCI.

Regarding claims 3 and 19, Suzuki discloses, the Internet protocol IPv6, consisting of a **path control function** and/or switching, (**see col 1 lines 30-42**).

Regarding claim 4, Suzuki discloses class of service region 42 (**see Fig 8; col 7 lines 24-37**), the datagrams may be classified according to their QoS classes at the router device without looking into the datagram content.

Regarding claims 5, 6 and 15, Suzuki discloses storing of packet switching information within a table, (**see col 2 lines 22-32**).

Regarding claims 7, 8, 14, 16 and 17, Suzuki discloses the storage of security parameters and/or management messages within the address header of the IPv6 protocol structure, which is used for transfer of the datagram between the IP network and the ATM network. The correlation of the IP address with the ATM address is stored within an address table that corresponds with one another, (**see col 1 lines 30-42, col 2 lines 1-33**).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US Pat 6,330,239) in view of Nagami et al. Suzuki discloses a communications switching system for exchanging data between an asynchronous transfer mode network and an Internet protocol communication network, (**see abstract; Figs 2 & 3**). The packets being transferred convert an address solving port for extracting logical address information from a datagram received from an Internet protocol (IP) computer network through a data transmission path and converting the extracted address information into absolute address information of an asynchronous transfer mode (ATM) network, (**see abstract and cols 1-2**).

Suzuki fails to disclose assigning of priorities for transmission of the incoming packets.

Nagami discloses priority control for datagrams to be transferred by a router device according to the determined quality of service, (**see abstract; Figs 1-3, col 2 lines 10**).

The priority scheme of Nagami helps to improve the packet transfer efficiency by ascertaining the requested quality of service for the packet and transferring the packet accordingly, as opposed to processing based on order of arrival which would delay packet transfers for higher priority based packets. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include priority datagram teachings of Nagami within Suzuki to improve the datagram transfer efficiency by effectively processing incoming packets based on QoS instead of order of arrival and therefore increasing packet transfer for higher priority packets.

Response to Arguments

Applicant's arguments filed April 7, 2005 have been fully considered but they are not persuasive.

With respect to claim 1, Applicant contends Suzuki fails to disclose particular fields in a portion of the digital information packet allocated for Internet Protocol (1P) to include from at "least" one of the following;

-a Packet Number field for indicating whether the packet is the first packet in a chain of packets, or a generic packet for a specific purpose;

-at least one virtual connection identifier;

-a Quality of Service (QoS) field for identifying parameters of Quality of Service; - a management field containing a management message',

and -a security field for indicating security parameters for providing security of packet transmission.

Suzuki does teach digital information packet allocated for Internet Protocol (1P) to include a packet number field (33, Fig. 7) or the flow label (see Figs. 7, 9 & 10, col 8 lines 30-42). The ATM cell adds an IP datagram (14), which forms one ATM cell. The IP datagram portion is the addressing portion of the total packet that will be sent from source to destination. Further, Suzuki discloses an enhanced IP version or the Ipv6, which also includes QoS parameter (see col 4 lines 15-17). Thus since Suzuki does discloses at "least" one of the listed parameters therefore claim 1 stands rejected.

With respect to claims 9 and 18, Applicant contends Suzuki fails to disclose virtual connection identifier arranged in a portion of the digital information packet allocated for Internet Protocol (1P).

Again, Suzuki discloses a communications switching system for exchanging data between an asynchronous transfer mode network and an Internet protocol (IP) network, (see abstract; Figs 2 & 3), the system comprises of the following with respect to an IP network in general;

- a virtual connection identifier (see col 6 lines 17-39, the VPI/VCI form the virtual connection identifiers which form the path selection unit, further, by definition a VCI is a 16 bit field in the ATM cell header, that identifies a virtual channel, over which the cell is to travel and therefore is part of the allocated IP address field).

One skilled in the art will appreciate that an IP packet includes a header portion and a general data portion (see US Pat. 6381244 B1) Fig. 35. FIG. 35 is a diagram showing the relationship between an IP packet (IP datagram) and ATM cells. The IP packet is composed of a header PH and transmission data DT. The header PH includes a variety of information, such as a source address SA and destination address DA. The IP packet is partitioned into a number of ATM cells CL.sub.1.about.CL.sub.n, and a header HD is added onto each cell at the beginning thereof. Line identifiers (VPI/VCI) are included in the headers of the cells CL.sub.1.about.CL.sub.n have identical values. This Fig. Is PRIOR ART, which clearly indicates the incorporation of VPI/VCI in a portion of an IP packet allocated for address fields.

Thus since the use of VPI/VCI is well known in the arts and Suzuki by default discloses it use, therefore claims 9 and 18 stand rejected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

RJ
June 3, 2005

WELLINGTON CHIN
PERVISORY PATENT EXAMINER